US Army Medical Research and Materiel

Technology Available for Licensing

Transportable Life Support System

This invention is a stretcher-based, mini-intensive care unit that provides resuscitative and life-sustaining capabilities in a universally adaptive platform.
A hard- or soft-shell canopy provides a miniature pre-operative holding area or a post-operative recovery room. It allows the transport of medically unstable patients and fits into existing evacuation platforms. It can be used to provide trauma care in a battlefield or mass casualty situation.

Since the end of World War I, the percentage of combat mortality has remained between 20-25%, primarily because 90% of battle-related deaths occur within the first hour of injury on the battlefield. There is a need to bring medical care currently only available in the rear echelons to forward positions for the acute management of life-threatening injuries. Additionally, while current stretcher-based devices have been developed to enhance a caretaker's ability to monitor and treat patients in critical condition, they do not provide the comprehensive quality of care that is needed to maximize survivability. For instance, there are no stretchers for ground or air transport that are equipped with monitoring or therapeutic capabilities which allow detection and response to a life-threatening medical emergency en route to a care nt facility.

The transportable life support system can serve as a self-contained operative platform in the civilian sector during natural disasters or mass casualty scenarios where l personnel and equipment are limited or not available. With the canopy in place, the environmental control unit provides positive overpressure to protect against chemical or biological contamination.

Features and advantages:

- **Provides mobile intensive care capability to treat trauma victims at site of injury**
- **Provides therapeutic devices and physiologic monitoring systems**
- **Serves as a platform to conduct surgical procedures**
- **Can use either an internal or external power source**
- **Can control by an on-board computer, manually, or remotely by a medic**

Patent Status

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